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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,133	10/09/2001	Shunpei Yamazaki	SEL 281	4744

7590 08/01/2005
COOK, ALEX, McFARRON, MANZO
CUMMINGS & MEHLER, LTD
SUITE 2850
200 WEST ADAMS STREET
CHICAGO, IL 60606

EXAMINER	
KEBEDE, BROOK	
ART UNIT	PAPER NUMBER

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

09/973,133

Applicant(s)

YAMAZAKI ET AL.

Examiner

Brook Kebede

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-11,17-19,33-35,59-61 and 64-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-11,17-19,33-35,59-61 and 64-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/21/03;11/15/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Claim Rejections - 35 USC § 112***

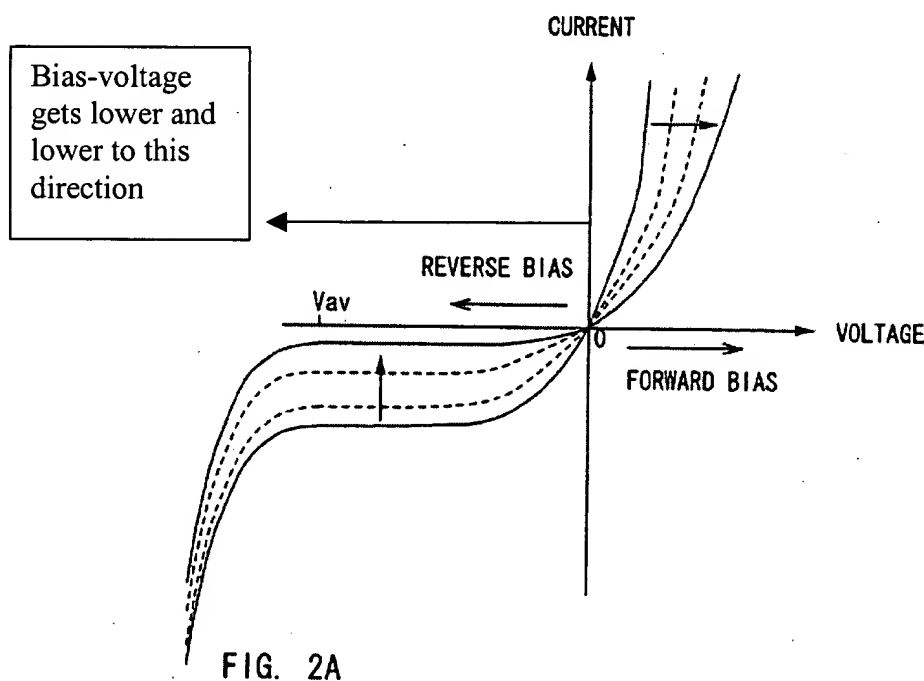
1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9-11, 17-19, 33-35, 59-61 and 64-75 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "wherein magnitude of the second reverse bias voltage is higher than magnitude of the first reverse bias voltage" in lines 8-9. However, the recited limitation is not clear in its meaning and scope for the following reasons:

As shown in Fig. 2A of the instant application and depicted herein below, the reverse bias is a negative bias voltage.



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However, it is not clearly specified in the claim that which magnitude of the first and the second reverse bias voltages are claimed. As shown in Fig. 2A the reverse bias voltage gets further lower and lower when further out the left of the abscissa. However, it is not clear at what point the first and the second bias voltages are taken. Hence, the claim lacks clarity in its meaning and scope. Therefore, the claim is indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites the limitation "wherein magnitude of the second reverse bias voltage is higher than magnitude of the first reverse bias voltage" in lines 10-12. However, the recited limitation is not clear in its meaning and scope for the same reason that set forth for claim 9 above.

Claim 33 recites the limitation "wherein magnitude of the second reverse bias voltage is higher than magnitude of the first reverse bias voltage" in lines 8-9. However, the recited limitation is not clear in its meaning and scope for the same reason that set forth for claim 9 above.

Claim 64 recites the limitation "wherein magnitude of the second reverse bias voltage is higher than magnitude of the first reverse bias voltage" in lines 8-9. However, the recited limitation is not clear in its meaning and scope for the same reason that set forth for claim 9 above.

Claim 68 recites the limitation "wherein magnitude of the second reverse bias voltage is higher than magnitude of the first reverse bias voltage" in lines 9-10. However, the recited limitation is not clear in its meaning and scope for the same reason that set forth for claim 9 above.

Claim 72 recites the limitation “wherein magnitude of the second reverse bias voltage is higher than magnitude of the first reverse bias voltage” in lines 9-10. However, the recited limitation is not clear in its meaning and scope for the same reason that set forth for claim 9 above.

Claims 10, 11, 18, 19, 34, 35, 59-61, 65-67, 69-71 and 73-75 are also rejected as being directly or indirectly dependent of the rejected independent base claim.

Accordingly, claims 9-11, 17-19, 33-35, 59-61 and 64-75 have not been rejected over the prior art because, in light of the 35 U.S.C. 112 second Paragraph rejections *supra*, there is a great deal of confusion and uncertainty as to the proper interpretation of the limitations of the claims; hence, it would not be proper to reject the claims on the basis of prior art. As stated in *In re Steele*, 305 F.2d 859, 134 USPQ 292 (CCPA 1962), a rejection under 35 U.S.C. 103 should not be based on considerable speculation about the meaning of terms employed in a claim or assumptions that must be made as to the scope of the claims.

Response to Arguments

3. Applicants' arguments with respect to claim 9-11, 17-19, 33-35, 59-61 and 64-75 have been considered but are moot because the arguments solely based on the claim limitation that deemed raised new matter as set forth in Paragraph 2 above. Therefore, applicants' arguments are moot in view of the new ground(s) of rejection that was necessitated by the amendment filed on May 9, 2005.

Conclusion

4. This action is made **non-final** in view of the new ground of rejection.


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Correspondence

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brook Kebede whose telephone number is (571) 272-1862. The examiner can normally be reached on 8-5 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Brook Kebede
Examiner
Art Unit 2823

BK
July 23, 2005